



AU9724937

(12) PATENT ABSTRACT (11) Document No AU-A-24937/97
(19) AUSTRALIAN PATENT OFFICE

(54) Title
TENT BED

International Patent Classification(s)
(51) E04C 005/20 B28B 021/56 B28B 023/02

(21) Application No. : 24937/97 (22) Application Date : 16/06/97

(30) Priority Data

(31) Number (32) Date (33) Country
29610682 18/06/96 DE GERMANY

(43) Publication Date : 08/01/98

(71) Applicant(s)
BERND ASTOR

(72) Inventor(s)
BERND ASTOR

(74) Attorney or Agent
WATERMARK PATENT & TRADEMARK ATTORNEYS, Locked Bag 5, HAWTHORN VIC 3122

(57) Claim

1. Tent bed comprising
 - a) a collapsible frame structure in the form of a bed framework,
 - b) a tensionable sheet which can be fastened thereon and has a means of connection to the tent cover all the way round, and
 - c) a tent cover with a corresponding means of connection to the tensionable sheet, including tensioning elements.

AUSTRALIA

Patents Act 1990

**ORIGINAL
COMPLETE SPECIFICATION
STANDARD PATENT**

Application Number:

Lodged

Invention Title: TENT BED

The following statement is a full description of this invention, including the best method of performing it known to me :-

BEST AVAILABLE COPY

Bernd Astor, 60529 Frankfurt/M.

Description

Tent bed

When camping in the open air using conventional
5 tents, wet ground and the presence of small creatures, in particular, mean that it is not very pleasant, and possibly even dangerous, to lie directly on the ground or, possibly, on a mattress or the like placed on the ground.

10 The object has thus been to eliminate this disadvantage by way of a novel tent structure or the like which can be set up and dismantled in a short period of time.

This object has been achieved by the tent bed
15 according to the invention. The tent bed comprises

- a) a collapsible frame structure in the form of a bed framework,
- b) a tensionable sheet which can be fastened thereon and has a means of connection to the tent cover
20 all the way round, and
- c) a tent cover with a corresponding means of connection to the tensionable sheet, including tensioning elements.

The collapsible frame structure a) may be, for
25 example, a collapsible camp-bed framework according to the schematic illustration in Figure 1. The only adaptation which additionally has to be made is to provide the end points (1) for the tensioning elements, which serve for holding the tent cover in place. These end
30 points (1), for example in the form of a tensioning device, screw-action device or clamping device, may be produced, and added, simply and inexpensively.

In principle, it is also possible to use commercially available, collapsible loungers as the collapsible
35 frame structure a).

The collapsible frame structure a) preferably

comprises plug-in tubes and connecting elements according to the illustration shown by way of example in Figure 2, in the case of which the frame parts (2), (3) and (4) can be plugged into one another in order to save space. This means that the connecting elements/end-socket pieces (5) and (6) are different. The diameters of the openings for receiving the frame parts (2), (3) and (4) have been matched to one another. When setting up the structure, it should be ensured that the marked connecting elements are chosen correctly. It is also expedient here to fit supporting surfaces (7), as a load-bearing base, over the two tubes (2) and (3); the tube (4) and the two tubes (3) can then be plugged into the connecting elements (5) and (6). The free ends of the frame parts (2) and (3) are plugged together via the connecting elements (8); the openings of the connecting elements (8) in the direction of the frame part (3) are larger than in the direction of the frame parts (2), this avoiding the situation where the two sides are confused with one another. In the next step, the connecting tube (9), which is preferably bent downwards, is then inserted.

The six feet (10) then have to be introduced, after which the frame structure a) is ready for receiving the tensionable sheet b). If the frame parts (2), (3) and (4) are hollow tubes of different diameters, such that the tubes can be plugged into one another, there is the advantage of a lower space requirement for dismantling and transporting the frame structure a); if, on the other hand, the frame parts are of the same diameter, this simplifies the operation of setting them up and consequently reduces the number of different elements.

Figure 3 shows a frame structure a) with only three different types of tube. All three types of tube can be folded via articulations. For the setting-up operation, the first step is preferably to push the two supporting surfaces (7) over the two longitudinal tubes (11). After the introduction of the tube (12), which is clamped via the articulations, and then of the two tubes (13; which are latched in), the four feet (14) and the

two feet (15) have to be fitted. The corner connection of the foot of type (14) has the task of receiving the tubes (11) and (13) simultaneously in a balanced manner. The tensionable sheet (b) can then be drawn on.

5 The individual parts of the frame structure a) preferably consist of plastic (e.g. polyethylene, polypropylene, polyacetal, carbon-fibre material, etc) or light metal (e.g. aluminium); this has the advantage of low weight.

10 Figure 4 shows an example of the shape (16) of the tensionable sheet b) which can be fastened on the frame structure a). The tensionable sheet b) preferably consists of fabric or fabric-like material and [lacuna] provided here, by way of example, with three pairs of
15 tensioning devices (22) around the frame structure a).

 The border of the tensionable sheet b) is preferably provided with one half of a zip fastener or touch-and-close fastener (for the purpose of connection to the tent cover); this half of the zip fastener or touch-and-
20 close fastener is indicated by the line (17) in the figure.

 Figure 5 shows an example of the shape of the tent cover c), which is borne by tensioning elements (18) which, for their part, are fastened at the corner points
25 of the frame structure a). By way of example, the tent cover c) here is in the shape of the longitudinal half of a hollow cylinder, the cut surface of which defines the size of the bed.

 The other half (19) of the zip fastener or touch-and-close fastener is arranged on the bottom border of the
30 tent cover c), for the purpose of fixed connection to the tensionable sheet b).

 The tent cover c) preferably consists of a breathable material, in order to ensure good ventilation. Depending
35 on usage, the cover material may also comprise, for example, a gauze which protects against insects.

 Furthermore, the tent cover c) preferably also has a closeable entrance (20); viewing windows (21) may also be provided.

A number of design variants, e.g. the double-bed variant, fall within the scope of the invention.

Possible dimensions of the inventive tent bed in Figure 6 are, for example:

- 5 Width: approximately 0.6 m to 1 m
Length: approximately 2 m
Height: approximately 1.20 m
Distance between the surface
of the bed and the highest
10 point of the canopy: Average height of the seated
quantities [sic] (approx-
imately 1 m)

The magnitude of the volume of the collapsed tent
bed in Figure 7 is approximately that of a cylinder of
15 length 1 m and of a diameter of approximately 20 to
30 cm;

the weight - depending on the materials used - is
usually in the order of magnitude of from approximately
2 to 20 kg.

20 The inventive tent bed permits enjoyable camping
in the open air while being protected from the weather,
wet ground and the intrusion of animals, and can be set
up and dismantled in a short period of time. The special
method of connecting the surface of the bed to the canopy
25 via a zip fastener or touch-and-close fastener allows the
bed-containing interior to be hermetically partitioned
off.

The inventive camp bed can be widely used, e.g.
by tourists (on holiday, camping), the emergency ser-
30 vices, the police, the fire service, the armed forces,
etc.

~~Claims~~

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. Tent bed comprising
 - a) a collapsible frame structure in the form of a bed framework,
 - 5 b) a tensionable sheet which can be fastened thereon and has a means of connection to the tent cover all the way round, and
 - c) a tent cover with a corresponding means of connection to the tensionable sheet, including
- 10 2. Tent bed according to Claim 1, characterized in that the collapsible frame structure a) is a collapsible camp-bed framework.
3. Tent bed according to Claim 1, characterized in
- 15 that the collapsible frame structure a) comprises plug-in tubes and connecting elements.
4. Tent bed according to one or more of Claims 1 to 3, characterized in that the collapsible frame structure a) consists of plastic or light metal.
- 20 5. Tent bed according to one or more of Claims 1 to 4, characterized in that the tensionable sheet b) consists of fabric or a fabric-like material.
6. Tent bed according to one or more of Claims 1 to 5, characterized in that the border of the tensionable
- 25 sheet b) is provided with one half of a zip fastener or touch-and-close fastener.
7. Tent bed according to one or more of Claims 1 to 6, characterized in that the tent cover c) is borne by
- 30 tensioning elements which are fastened at the corner points of the frame structure a).
8. Tent bed according to Claim 6, characterized in that the other half of the zip fastener or touch-and-close fastener is arranged on the bottom border of the tent cover c), for the purpose of fixed connection to the
- 35 tensionable sheet b).
9. Tent bed according to one or more of Claims 1 to 8, characterized in that the tent cover c) consists of

breathable material.

10. Tent according to one or more of Claims 1 to 9, characterized in that the tent cover c) has a closeable entrance.

DATED this 16th day of June 1997.

BERND ASTOR

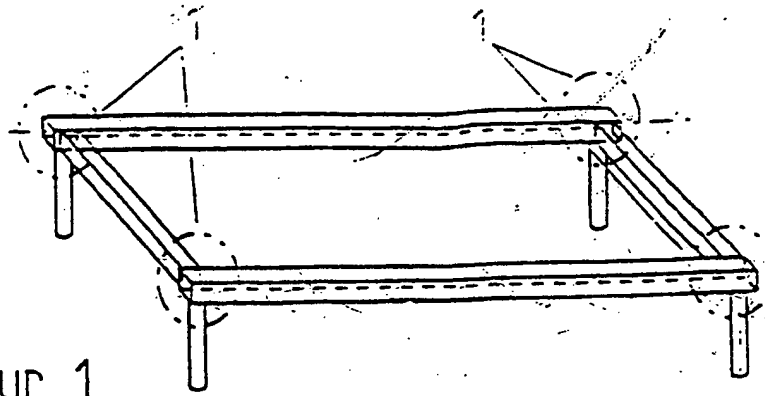
WATERMARK PATENT & TRADEMARK ATTORNEYS
290 BURWOOD ROAD
HAWTHORN. VIC. 3122.

Abstract

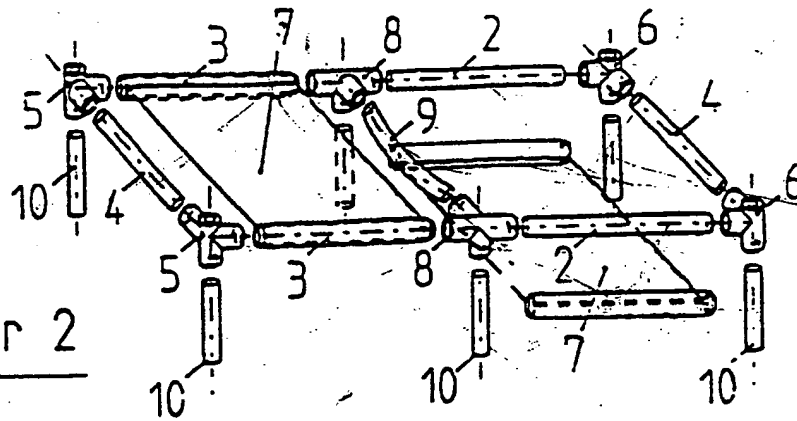
Tent bed comprising

- a) a collapsible frame structure in the form of a bed framework,
- b) a tensionable sheet which can be fastened thereon and has a means of connection to the tent cover all the way round, and
- c) a tent cover with a corresponding means of connection to the tensionable sheet, including tensioning elements.

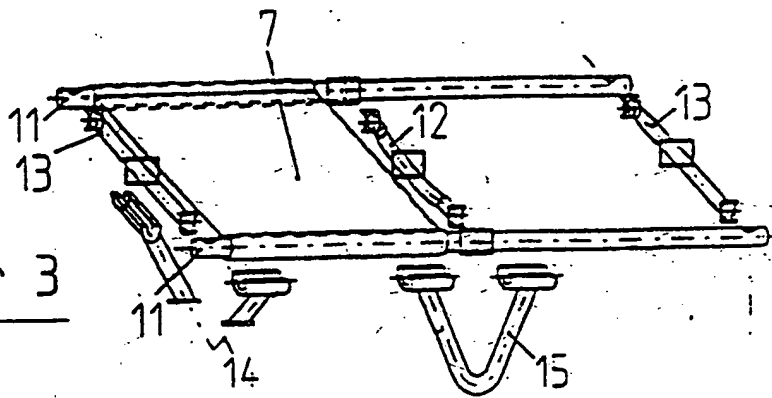
The inventive tent bed permits enjoyable camping in the open air while being protected from the weather, wet ground and the intrusion of animals, and can be set up and dismantled in a short period of time.



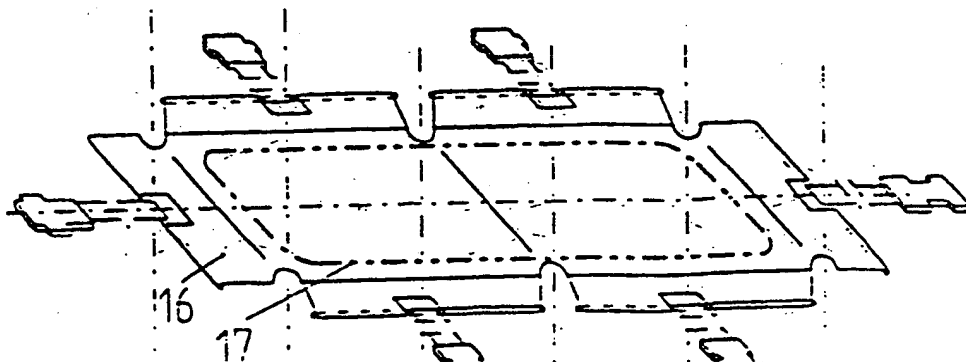
Figur 1

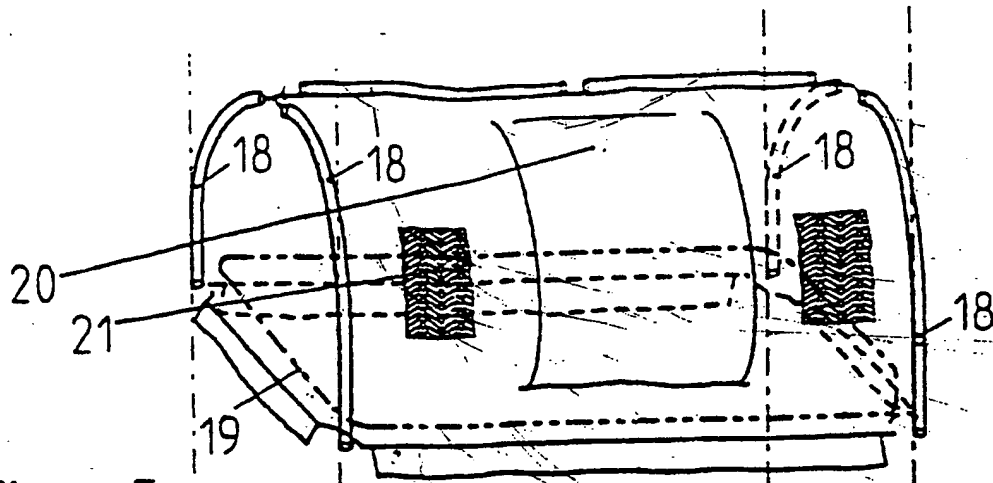


Figur 2

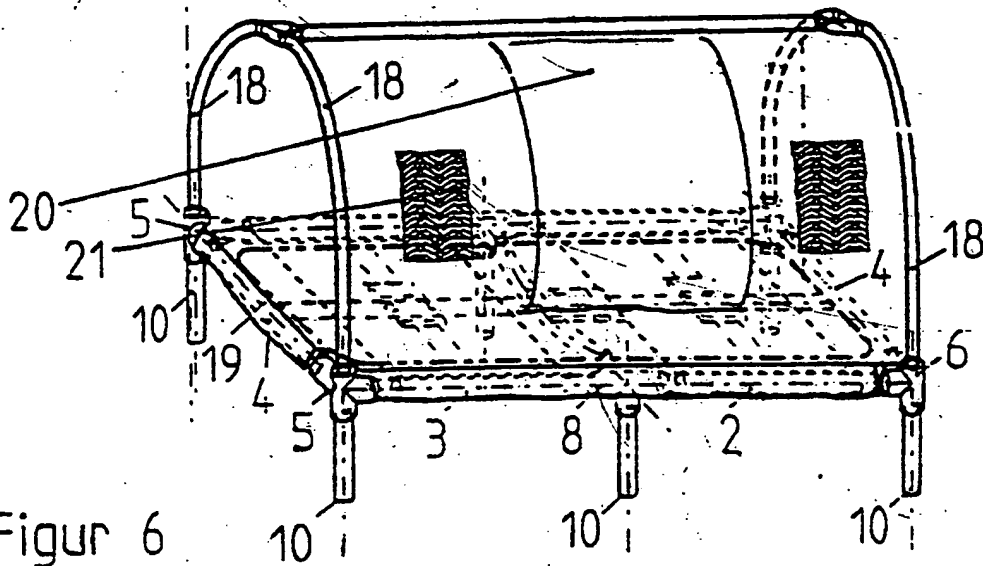


Figur 3





Figur 5



Figur 6

